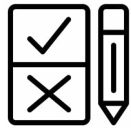




This section helps determine which steel elements are worth recovering for reuse and which are currently less suitable. It includes a decision-making tree and specific acceptability criteria from leading UK steel stockholders, Cleveland Steel and Tubes, and EMR. A photographic library shows images of steels in situ and post-deconstruction/demolition, along with notes on their acceptability by steel stockholders. The section also includes notes on the reusability of various structural and non-structural steel elements.



## Acceptability of steel for reuse

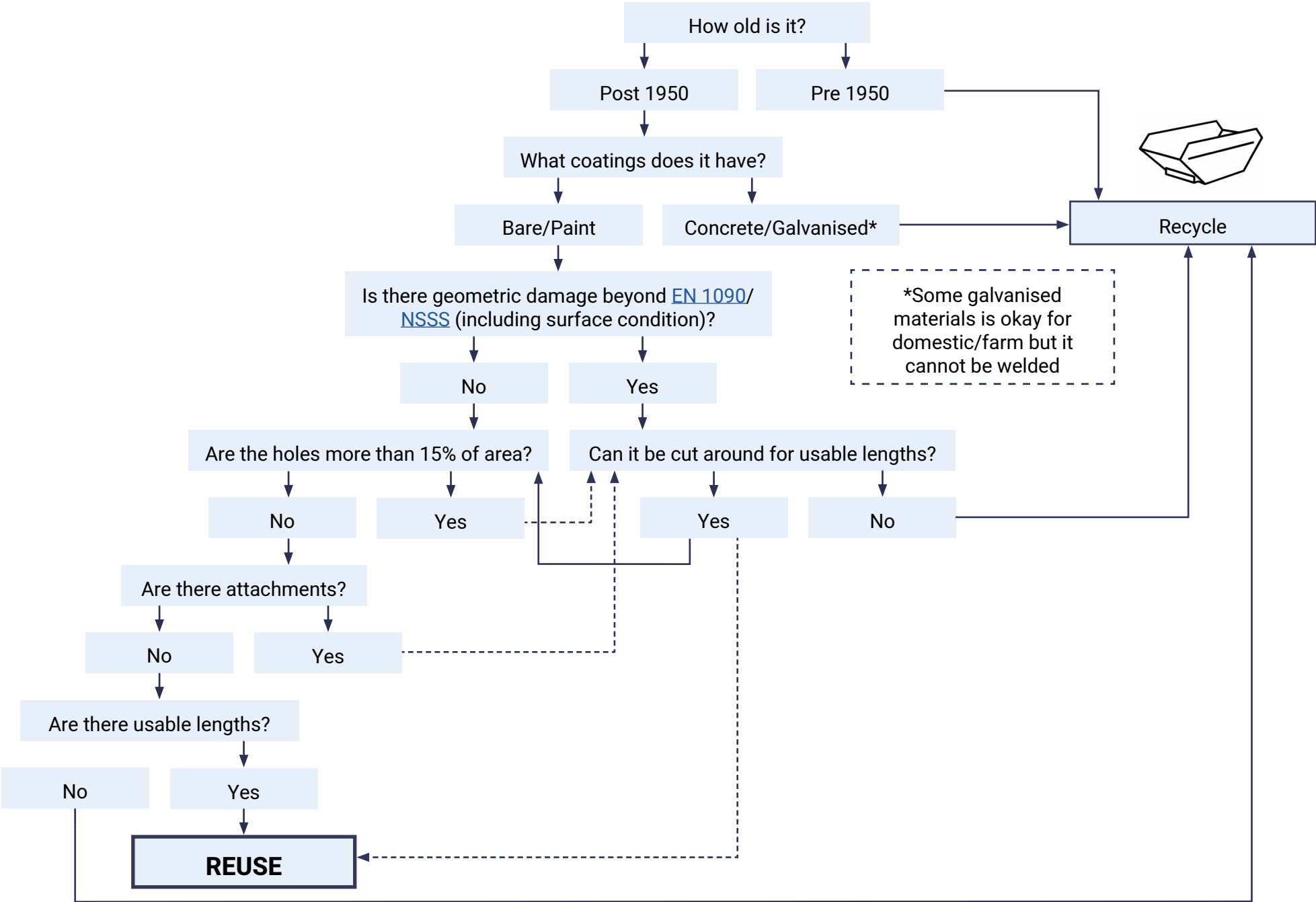
Decision tree: acceptability of steel for reuse

Acceptability criteria from steel stockholders

Photographic library with steel in situ and after recovery

Non-structural steel products (coming soon)

# Decision Tree for reusing steel



# Acceptability criteria of steel sections for reuse by reclaimed steel



	<a href="#">European Metal Recycling (EMR) Reusable Steels</a>	<a href="#">Cleveland Steel and Tubes</a>
<b>Information required</b>	Proof of post 1970 construction is required for each building, e.g. archive drawings or any information for the original construction.	
<b>Notes on condition</b>	Dents, bends, and twists may prevent reuse or reduce usable length. Visually straight steel sections.	
<b>Length of steel sections</b>	Beams: 8m+ Columns: 4m+	3m+
<b>Weights</b>	Heavier sections (50 kg/m) are less likely to be damaged	Steel sections of all weights are considered
<b>Measurements</b>	Depth, width, flange thickness measurements are required	
<b>Type of steel sections</b>	Accepted: +UC and UB hot rolled sections are accepted Not accepted: Closed sections (SHS/CHS/RHS), bracing, plate girders, castellated beams	All sections apart from fabricated ones i.e. plate girders and castellated beams
<b>Types of construction</b>	Trusses: challenging to reuse due to complex construction. Usually formed of light sections which are at high risk of damage. Composite slabs: Breaking out of slab risks damage to top flange. Heavier sections are more likely to survive recovery, whereas lighter steel sections risks damage. Portal frames: Usually cut at the haunches; longer haunches reduce usable length. Bridges: Risk of fatigue; not suitable for reuse.	Same + crane rails
<b>Connections</b>	Take photos of the connections, if visible. These can be cut or unbolted during removal. Cutting is usually quicker and connections are removed, as standard, prior to reuse.	Not interested in this detail; just discuss the demolition/deconstruction process
<b>Level of fabrication and openings</b>	Accepted: + 'Clean' sections with minimal fabrication and opening are ideal Need consideration: Web stiffeners - one or two are ok; lots can be an issue; service holes - the less the better; these limit where new connections can go; shear studs - will be present with composite slabs and removed during defabrication. Not accepted: Flange plates - challenging to remove without damage; usually prevents reuse.	Most are accepted but avoid multiple service holes and not keen on shear studs
<b>Coatings</b>	Accepted: +Oxide paint, +Insumescent paint Need consideration: Cementitious coating Not accepted: Concrete encased, galvanised	Accepted: +Oxide paint Need consideration: Insumescent paint, cementitious coating, galvanised (smaller sizes can be accepted) Not accepted: Concrete encased